



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

233 Peachtree Street Ste 600
Atlanta, GA 30303

**NOTICE OF PROBABLE VIOLATION
PROPOSED CIVIL PENALTY
and
PROPOSED COMPLIANCE ORDER**

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

May 7, 2008

Robert L. Rose
President
Tampa Pipeline Corporation
P O. Box 35236
Sarasota, FL 34242

CPF 2-2008-6002

Dear Mr. Rose:

Between July 30 and August 2, 2007, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected your Tampa Bay Pipeline Company (TBPL) records and facilities in Tampa, FL.

Subsequent to this inspection, TBPL experienced an accidental leak on its anhydrous ammonia pipeline on November 12, 2007 under the US Hwy 301 bridge at the Alafia River in Hillsborough County. A representative of PHMSA investigated this accident and attended an "After Action Review Meeting" on November 27, 2007 conducted by Hillsborough County Emergency Management.

As a result of the inspection and the accident investigation, it appears that your Emergency Procedures and Emergency Training are inadequate and you have committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations. The items inspected or observed and the probable violations are:

1. **§195.402 Procedural manual for operations, maintenance, and emergencies.**

(a) General. Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective.

TBPL's manual of written procedures was not reviewed in 2006.

TBPL's operations and maintenance manual required an annual review of its normal operations and maintenance, abnormal operations, and emergency operations manuals. No records were found to demonstrate that TBPL conducted a review of its manuals in 2006 to make appropriate changes as necessary to insure that its manuals are effective.

2. **§195.404 Maps and records.**

(a) Each operator shall maintain current maps and records of its pipeline systems that include at least the following information:

... (3) The maximum operating pressure of each pipeline.

Records of the maximum operating pressure (MOP) of each pipeline were not found

TBPL could not provide records conveying established pipeline MOPs. Although the TBPL system is designed to operate at stress levels well below those minimally required of the pipeline safety regulations, TBPL must determine and record the MOP of each pipeline in accordance with §195.406, and maintain the records as required of §195.404.

3. **§195.440 Public awareness.**

(a) Each pipeline operator must develop and implement a written continuing public education program that follows the guidance provided in the American Petroleum Institute's (API) Recommended Practice (RP) 1162 (incorporated by reference, see §195.3).

TBPL has not implemented its written continuing public education program as required of §195.440(a)

TBPL's *Operations & Maintenance Procedural Manual* Section 4.7.0 *Public Awareness* requires Emergency Officials to be communicated with (baseline message) on an annual frequency. There is no documentation that the eleven Emergency Responders listed in the TBPL O&M manual were given the baseline message since prior to January 1, 2006. The effective date of the TBPL program is 11/29/05.

4. §195.440 Public awareness.

... (c) The operator must follow the general program recommendations, including baseline and supplemental requirements of API RP 1162, unless the operator provides justification in its program or procedural manual as to why compliance with all or certain provisions of the recommended practice is not practicable and not necessary for safety.

TBPL is not following baseline and supplemental requirements of API RP 1162 in implementing its written continuing public education program as required of 195.440(c).

Operations & Maintenance Procedural Manual Section 4.7.0 *Public Awareness* (TBPL program) identifies the *Affected Public* as *individuals living, working, or congregating near pipeline*; however, TBPL is not following the guidance of API RP 1162 in identifying the *Affected Public*. TBPL has not defined a minimum communications coverage area distance, and has not determined specific affected public stakeholder addresses in accordance with the guidance provided in API RP 1162 Appendix B, Section B-1.1 *Affected Public*. Section B.1.1 describes methods used in identifying stakeholder addresses, including identification of the public within a recommended minimum coverage area of 660 feet. In addition, API RP 1162 Section 6.3.1 *The Affected Public* conveys that for HVL pipelines in high population areas, consideration should be given to implementing the supplemental element of widening the coverage area “ . . . beyond the 1/8th mile minimum distance each side of the pipeline.” TBPL has not provided justification in its program or procedural manual as to why it is not following the requirements of API RP 1162 relating to identification of the *Affected Public*. The effective date of the TBPL program is 11/29/05.

5. §195.505 Qualification program.

Each operator shall have and follow a written qualification program. The program shall include provisions to:

... (b) Ensure through evaluation that individuals performing covered tasks are qualified;

TBPL did not follow its written qualification program as required of §195.505. TBPL did not ensure through evaluation, pursuant to its written qualification program, that an individual performing two covered tasks was qualified to perform the tasks.

Qualification records, procedures, and job status information provided by TBPL indicate that an individual had been independently performing covered task 43.3 *Monitor Pressures, Flows, Communications and Line Integrity and Maintain Them Within Allowable Limits*, and covered task 43.4 *Manually or Remotely Open or Close Valves or Other Equipment* without being qualified under its program to perform these tasks. The individual had been independently performing these tasks as required of the Ammonia Operator job position for at least one year. One element in Section 7.2 of TBPL’s Operator Qualification Program is for the program to ensure “through evaluation that individuals performing covered tasks are qualified.”

6. §195.573 What must I do to monitor external corrosion control?

(a) *Protected pipelines.* You must do the following to determine whether cathodic protection required by this subpart complies with §195.571:

(1) Conduct tests on the protected pipeline at least once each calendar year, but with intervals not exceeding 15 months. However, if tests at those intervals are impractical for separately protected short sections of bare or ineffectively coated pipelines, testing may be done at least once every 3 calendar years, but with intervals not exceeding 39 months.

TBPL did not conduct tests on its protected pipeline at least once each calendar year, as required of §195.573(a)(1).

Records indicate the annual cathodic protection survey was not performed in calendar year 2006. The 2005 and 2007 surveys were performed within 15 months (December 19 - 21, 2005, and February 20-22, 2007).

7. §195.583 What must I do to monitor atmospheric corrosion control?

(a) You must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows

If the pipeline is located:	Then the frequency of inspection is:
. . . Onshore	At least once every 3 calendar years, but with intervals not exceeding 39 months.

TBPL requires atmospheric corrosion inspections be conducted as part of its bi-weekly pipeline patrolling program. An excerpt from TBPL's instructions for completion of the *Bi-Weekly Right-of-way Inspection Report* states

"C.3. Bridge Crossing – Name of bridge and general area Visually inspect hangers and note any unusual findings Look for and note any evidence of casing movement, also note any external coating conditions and check for grounding of the casing "

A review of TBPL's records from 01/06/04 to 07/16/07 indicated that the exposed pipe at the south end of Licata Bridge was not adequately inspected for evidence of atmospheric corrosion at least once every 3 calendar years, but with intervals not exceeding 39 months, as required of §195.583(a). The exposed pipe consists of above-ground pipe and fittings traversing between buried pipe and the end of the casing which is hung from the bridge. The exposed pipe is in the immediate vicinity of the end of the casing

The referenced inspection records do not indicate any deteriorated coating or atmospheric corrosion on the exposed piping, though the PHMSA field inspection found the coating to be in poor condition and the pipeline suffering from severe atmospheric corrosion. The pipe coating had completely failed, and a subsequent corrosion analysis indicates as much as 56% loss in pipe wall thickness

8. §195.589 What corrosion control information do I have to maintain?

... (c) You must maintain a record of each analysis, check, demonstration, examination, inspection, investigation, review, survey, and test required by this subpart in sufficient detail to demonstrate the adequacy of corrosion control measures or that corrosion requiring control measures does not exist. You must retain these records for at least 5 years, except that records related to §§195.569, 195.573(a) and (b), and 195.579(b)(3) and (c) must be retained for as long as the pipeline remains in service.

§195.579 What must I do to mitigate internal corrosion?

... (c) *Removing pipe.* Whenever you remove pipe from a pipeline, you must inspect the internal surface of the pipe for evidence of corrosion. If you find internal corrosion requiring corrective action under §195.585, you must investigate circumferentially and longitudinally beyond the removed pipe (by visual examination, indirect method, or both) to determine whether additional corrosion requiring remedial action exists in the vicinity of the removed pipe.

Records of inspecting the internal surface of the pipe for evidence of internal corrosion when pipe was removed were not maintained, as required of §195.589(c).

When TBPL removed pipe from IMP Segments 5, 11, and 14, it did not maintain records to show it conducted an inspection of internal surfaces of the pipe for evidence of internal corrosion. Pipe was removed from the IMP segments when they were cut and capped as part of idling the pipelines in 2006 and 2007.

9. §195.402 Procedural manual for operations, maintenance, and emergencies.

(a) *General.* Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies...

... (c) *Maintenance and normal operations.* The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:

... (12) Establishing and maintaining liaison with fire, police, and other appropriate

public officials to learn the responsibility and resources of each government organization that may respond to a hazardous liquid or carbon dioxide pipeline emergency and acquaint the officials with the operator's ability in responding to a hazardous liquid or carbon dioxide pipeline emergency and means of communication.

The actions taken by TBPL during the November 12, 2007 emergency demonstrate that inadequate procedures are in place and that liaison with Hillsborough County Fire Rescue (HCFR) had not been established and maintained. TBPL had not established and maintained liaison with Hillsborough County Fire Rescue (HCFR) During HCFR's response to a pipeline emergency, TBPL's actions demonstrated a lack of communication and coordination and lack of knowledge about HCFR's responsibility and resources

On November 12, 2007, TBPL experienced an accidental leak on its anhydrous ammonia pipeline. During PHMSA's accident investigation, an interview of TBPL personnel further demonstrated that TPBL did not establish and maintain liaison or have adequate procedure. The investigation revealed that TBPL had the appropriate safety equipment to enter a hazardous environment but not the appropriate training. TBPL personnel stated it had two Level A Haz Mat Suites. When asked if TBPL personnel had appropriate training to use the Level A Suites the response was that PHMSA regulations do not require Hazwoper type training. TBPL personnel could not produce any records to indicate that any type of training had been done with the use of Level A Haz Mat Suites. TBPL personnel stated they could have had the leak repaired much sooner but the HCFR would not let TBPL enter the site until the pipeline had reached zero pressure. At the Hillsborough County After Action Review Meeting the HCFR indicated that they did not want TBPL personnel to enter a hazardous environment, such as an anhydrous ammonia leak, even with the proper equipment and training. It is evident that TBPL did not maintain liaison with HCFR to communicate in advance of an emergency which organization was responsible for using Level A Haz Mat Suites, if necessary, to respond to a leak on an anhydrous ammonia pipeline.

At the Hillsborough County After Action Review Meeting the HCFR indicated that they did not have adequate drawings of the anhydrous ammonia pipeline and specifically requested that TBPL provide them with detailed drawing showing the location of valves and previous hot taps If adequate liaison had been maintained, the HCFR personnel would have had adequate pipeline drawings prior to the incident

The After Action Review Meeting generated a report with several recommendations for TBPL. 1) TBPL needs to "Assure that a high level company official is assigned to the command post for the duration of any future incidents." This recommendation indicates that TBPL did not understand the expectations of Hillsborough County Emergency Management prior to the incident and did not provide the level of support required during the incident

2) TBPL should "Provide at no cost, "State of the Art" pipeline clamps designed for this type of product and pressure. The pipeline clamps are to be provided to HCFR and Tampa Fire Rescue (TFR) for storage on their HazMat Response vehicles. The cost for any instructors for any

specialty training will be covered by the company ” Had adequate liaison been maintained prior to the incident, TBPL and HCFR would have been already established who was responsible for maintaining a stock of pipeline leak clamps and any other emergency equipment necessary for responding to a release of anhydrous ammonia. TBPL does not have adequate written procedures for establishing and maintaining liaison with fire, police and other appropriate public officials to learn the responsibility and resources of each government organization that may respond to a pipeline emergency.

10. §195.402 Procedural manual for operations, maintenance, and emergencies.

... (e) Emergencies. The manual required by paragraph (a) of this section must include procedures for the following to provide safety when an emergency condition occurs;

... (2) Prompt and effective response to a notice of each type emergency, including fire or explosion occurring near or directly involving a pipeline facility, accidental release of hazardous liquid or carbon dioxide from a pipeline facility, operational failure causing a hazardous condition, and natural disaster affecting pipeline facilities.

(3) Having personnel, equipment, instruments, tools, and material available as needed at the scene of an emergency.

... (7) Notifying fire, police, and other appropriate public officials of hazardous liquid or carbon dioxide pipeline emergencies and coordinating with them preplanned and actual responses during an emergency, including additional precautions necessary for an emergency involving a pipeline system transporting a highly volatile liquid.

During the emergency response actions of the November 12, 2007 release, the pipeline was stoppled and hot tapped to facilitate flaring of anhydrous ammonia. The tapping and stoppling work was completed at approximately 6:00 p.m. on November 13, 2007 about 24 hours after the product release was first discovered. During PHMSA’s investigation, the HCFR expressed concern about the excessive amount of time it took TBPL to bring in personnel to perform the tapping and stoppling operations. The HCFR also expressed concern about the reluctance of TBPL to perform this work at all. TBPL’s actions did not demonstrate a prompt response to having the necessary personnel and equipment available at the scene of an emergency. TBPL also lacked adequate emergency response preplanning and coordination.

11. §195.402 Procedural manual for operations, maintenance, and emergencies.

... (e) Emergencies. The manual required by paragraph (a) of this section must include procedures for the following to provide safety when an emergency condition occurs; . . .

... (8) In the case of failure of a pipeline system transporting a highly volatile liquid, use of appropriate instruments to assess the extent and coverage of the vapor cloud and determine the hazardous areas.

During the November 12, 2007 anhydrous ammonia release, TBPL did not demonstrate an ability to assist emergency management officials in estimating the extent and coverage of the leak. Another recommendation, from the After Action Review Meeting Report, is that TBPL “Work with an engineering group to develop models that will provide more accurate estimates of release durations based on a wide range of factors”.

TBPL’s *Operations & Maintenance Procedural Manual* Section 6.3 1 (B), excerpt below, does not adequately require or provide for the use of appropriate instruments to assess the extent and coverage of the referenced vapor cloud and determine the hazardous areas to provide safety when an emergency condition occurs. TBPL’s Procedures allow for only a single leak detection device and for determination of the limits of the dispersion of the cloud only in the immediate vicinity of the release. Procedures do not address how to determine the potential cloud location, size, dispersion, and movement so that a monitoring plan with instruments can be developed and implemented to identify the cloud coverage and hazard areas. Use of information such as terrain elevations, underground drainage systems, weather and wind information, spill volume, length of time since release and expected duration of release are not included in the procedures. The number of available detection instruments and personnel should reflect the requirements of the plan.

6.3 1(B) If emergency is a release of product, call for assistance to get appropriate work/repair and leak detection device capable of detecting anhydrous ammonia in the atmosphere and the limits of the dispersion of the vapor cloud in the immediate vicinity of the release

12. §195.403 Emergency response training.

- (a) Each operator shall establish and conduct a continuing training program to instruct emergency response personnel to:**
 - (1) Carry out the emergency procedures established under §195.40 that relate to their assignments**
 - (2) Know the characteristics and hazards of the hazardous liquids or carbon dioxide transported, including, in case of flammable HVL, flammability of mixtures with air, odorless vapors, and water reactions;**
 - ... (5) Learn the potential causes, types, sizes, and consequences of fire and the appropriate use of portable fire extinguishers and other on-site fire control equipment, involving, where feasible, a simulated pipeline emergency condition.**
- (b) At intervals not exceeding 15 months, but at least once each calendar year, each operator shall:**
 - (1) Review with personnel their performance in meeting the objectives of the emergency response training program set forth in paragraph (a) of this section**
...
- (c) Each operator shall require and verify that its supervisors maintain a thorough knowledge of that portion of the emergency response procedures established under §195.402 for which they are responsible to ensure compliance.**

PHMSA's investigation revealed that it was noted at the November 27, 2007 Hillsborough County After Action Review Meeting and the December 13, 2007 Coast Guard Pipeline Safety Security Meeting that TBPL has failed to conduct any type of emergency drills or exercises. It is necessary for TBPL to conduct a continuing training program that includes emergency response training such as emergency drills and exercises with the appropriate emergency response agencies. This training is needed in order to be adequately trained to respond to emergencies such as the release of anhydrous ammonia that occurred on November 12, 2007.

TBPL's emergency response training program has not been adequately established in accordance with regulatory requirements, as described below:

A. TBPL O& M Procedure Manual Section 4.1 *Training* states "Applicable sections in Title 49 CFR Part 195, Minimum Federal Safety Standards" are part of the program. Also, the *Annual Review Checklist* includes check-off items for *Emergency Operations Manual* and *Employee Emergency Response Training Program*.

However, TBPL's training program procedures do not . . .

1. . . specify the frequency that personnel (individuals) are required to review emergency response procedures (§195.403(a)(1)),
2. . . include instruction in knowing the characteristics and hazards of anhydrous ammonia as required of §195.403(a)(2), and
3. . . address the requirement to, where feasible, learn the use of fire control equipment in a simulated pipeline emergency condition. Although anhydrous ammonia is not considered flammable, TBPL stores flammable substances (gasoline and/or propane) at pump stations. Accidental ignition of these substances could result in a pipeline emergency condition (§195.403(a)(5)).

B. TBPL procedures do not require, at intervals not exceeding 15 months, but at least once each calendar year, review with personnel on their performance in meeting the objectives of the emergency response training program (§195.403(b)(1)). Although procedures require post-accident reviews of employee activities to determine whether procedures were effective (TBPL O& M Procedure Manual Section 6.4.0), procedures. . .

1. . . do not convey the requirement to perform reviews at the required annual/15 month frequency, and
2. do not convey the performance items to be reviewed. In addition to post-accident reviews (which may not be required during a multi-year time period), "performance in meeting the objectives . . ." could include, but are not necessarily limited to, personnel responses during simulated emergencies or during tabletop exercises, emergency training involvement, performance in completing emergency response training sessions or classes, etc

C. TBPL procedures do not convey how supervisors are to maintain a thorough knowledge of emergency response procedures (§195.403(c)).

Proposed Civil Penalty

Under 49 United States Code, § 60122, you are subject to a civil penalty not to exceed \$100,000 for each violation for each day the violation persists up to a maximum of \$1,000,000 for any related series of violations. The Compliance Officer has reviewed the circumstances and supporting documentation involved in the above probable violation(s) and has recommended that you be preliminarily assessed a civil penalty of \$398,000 as follows:

<u>Item number</u>	<u>PENALTY</u>
5	\$ 43,000
7	\$ 45,000
9	\$310,000

Proposed Compliance Order

With respect to items 2, 3, 4, 9, 10, 11, and 12, pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to Tampa Bay Pipeline Company. Please refer to the *Proposed Compliance Order*, which is enclosed and made a part of this Notice

Warning Items

With respect to items 1, 6, and 8, we have reviewed the circumstances and supporting documents involved in this case and have decided not to conduct additional enforcement action or penalty assessment proceedings at this time. We advise you to promptly correct these item(s). Be advised that failure to do so may result in Tampa Bay Pipeline Company being subject to additional enforcement action.

Response to this Notice

Enclosed as part of this Notice is a document entitled *Response Options for Pipeline Operators in Compliance Proceedings*. Please refer to this document and note the response options. Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. 552(b). If you do not respond within 30 days of receipt of this Notice, this constitutes a waiver of your right to contest the allegations in this Notice and authorizes the Associate Administrator for Pipeline Safety to find facts as alleged in this Notice without further notice to you and to issue a Final Order

In your correspondence on this matter, please refer to **CPF 2-2008-6002** and for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael J. Khayata". The signature is fluid and cursive, with a large, sweeping flourish at the end.

Michael J. Khayata
Acting Director, Southern Region
Pipeline and Hazardous Materials Safety Administration

Enclosure: *Response Options for Pipeline Operators in Compliance Proceedings*

PROPOSED COMPLIANCE ORDER

Pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to issue to Tampa Bay Pipeline Company (TBPL) a Compliance Order incorporating the following remedial requirements to ensure the compliance of Tampa Bay Pipeline Company with the pipeline safety regulations:

1. In regard to Item Number 2 of the Notice pertaining to MOP, TBPL shall determine and record the MOP of each pipeline in accordance with the requirements of 195.406.
2. In regard to Item Number 3 of the Notice pertaining to not implementing TBPL's continuing public education program as required of §195.440(a), TBPL shall update as necessary the Emergency Responders list in the TBPL O&M manual and provide each Emergency Responder with the baseline message pursuant to TBPL's Public Awareness Program. TBPL will document these actions upon completion
3. In regard to Item Number 4 of the Notice pertaining to not following baseline and supplemental requirements of API RP 1162 as required of 195.440(c), TBPL shall:
 1. Identify the *Affected Public*, including defining a minimum communications coverage area distance. Consideration should be given to implementing the supplemental element of widening the coverage area ". . . beyond the 1/8th mile minimum distance each side of the pipeline" and determining specific affected public stakeholder addresses. TBPL will document the addresses; and
 2. Provide the *Affected Public* the baseline message. TBPL will document the method and dates of providing the *Affected Public* with the baseline message.
4. In regard to Item Number 9 of the Notice pertaining to establishing and maintaining liaison with fire, police and other appropriate public officials, TBPL will revise its procedures to adequately address the requirements of 195.402(c)(12). The revised procedure shall contain detailed information describing how liaison will be maintained with all applicable emergency response organizations. The revised procedure will contain a list with names, addresses and phone numbers of the applicable emergency response organizations in all the cities and counties that TBPL operates in.
5. In regard to Item Number 10 of the Notice pertaining to emergency procedures, TBPL will revise its procedures to adequately address the requirements of 195 402(e)(2, 3 & 7). The preparation of the revised procedure shall be coordinated with all applicable emergency response organizations in the cities and counties that Tampa Bay Pipeline operates in. Documentation shall be maintained to demonstrate that all applicable emergency response organizations participated in or had the opportunity to participate in the revision of the emergency procedures.

The revised emergency procedures shall contain a list of all supplies and equipment to be stocked by Tampa Bay Pipeline in order to be able to adequately respond to foreseeable emergencies on the anhydrous ammonia pipeline system. These procedures shall also contain a list of supplies and

equipment expected to be provided by the appropriate emergency response organization during an emergency on the anhydrous ammonia pipeline system.

6. In regard to Item Number 11 of this notice pertaining to establishing the extent and coverage of the vapor cloud and hazardous areas, TBPL will revise its procedures to adequately address the requirements of 195 402(e)(8), including provisions for Tampa Bay Pipeline to perform the following on short notice during an accidental (emergency) release of anhydrous ammonia. Procedures will convey how these provisions will be performed (who, what, how, when).
 - A. Assess the extent and coverage of the vapor cloud by use of a vapor dispersion model, including allowance for variable inputs relating to foreseeable weather and pipeline operating conditions.
 - B. Estimate the time duration of an anhydrous ammonia release, considering the length of affected pipeline, the initial shut-in pressure, and the size of the discharge points (leak(s), flare points, etc.).
7. In regard to Item Number 12 of this notice pertaining to emergency response training, TBPL will revise its procedures to adequately address all the emergency response training requirements of 195.403. These revised procedures will contain specific requirements for conducting cooperative emergency drills and exercises with the appropriate emergency response organizations in the counties and cities that Tampa Bay Pipeline operates in.
8. The above listed revised procedures, actions, and documentation shall be completed within 45 days of receipt of the Final Order. Documentation shall be submitted to the Director, Southern Region within 60 days of the Final Order.
9. TBPL shall maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Michael J. Khayata, Acting Director, Southern Region, Pipeline and Hazardous Materials Safety Administration. Costs shall be reported in two categories: 1) total cost associated with preparation/revision of plans, procedures, studies and analyses, and 2) total cost associated with replacements, additions and other changes to pipeline infrastructure.